

by striking the teeth along the left submaxillary with a tooth forceps, until I reached the wisdom tooth, which was found almost alarmingly tender and painful. This tooth was extracted, and the pain, which had been so alarming, soon subsided and the eyes resumed their normal action and appearance. This case speaks volumes in favor of the theory advocated by Dr. Sanford, as well as the line of argument of Dr. Asey and other able supporters of the reflex theory.

ASEPSIS; ESPECIALLY IN THE PRACTICE OF OBSTETRICS*

By J. W. GRAHAM, M. D., Lompoc.

IN undertaking to write upon "Asepsis," the first difficulty encountered was to define the limits of the subject; once decided upon, the next question that presented itself was how best to make use of the time allotted for its discussion. It is impossible in this paper to go with any fullness into the details of the experimental research by which the truth of the germ theory was proved. Adopting the germ theory of putrefaction and fermentation, the great importance of cleanliness and of antiseptics is made plain, means which will exclude the access of germs. The question now is: What is necessary to be done to prevent sepsis occurring in the obstetrical chamber?

The following from the pen of a noted writer, an obstetrician of wide experience, seems to me to be up-to-date advice, and about what we hear and read from every source. Asepsis, as advised by him, is not necessary in a country practice, if it were attainable, which cannot be the case once in a thousand times:

When a patient is taken in labor, she is given a full tepid bath and scrubbed with soap, and to make the bath still more effective, it might be well to add soda to the soap and water; after the bath she is dressed in clean clothes and placed in a clean bed; under the sheet of which is placed a rubber sheet disinfected with bichloride, 1-1000. She is given an enema of soap suds; her abdomen, thighs, buttocks, and especially all the sulci at and near the genitals, are carefully washed with bichloride, 1-2000; after this about two quarts of the same fluid is injected into the vagina.

Now if the woman is still alive and in as good health, and as free from bacterial infection as she was when the ordeal began, and has not already been confined, she surely will be by the time the doctor is in good antiseptic trim to see her.

He ought to take off his coat and cuffs, roll up the sleeves of his shirt and undershirt, and clean and disinfect his hands, chemically and mechanically. It is not enough to use soap and rub our hands one against the other, as in ordinary cosmetic washing. The whole hand must be carefully scrubbed with a stiff nail brush, the doctor taking particular care to scrub the spaces under the nails and the creases at their root. After washing the hands are wiped dry and the spaces under the nails carefully scraped with a suitable instrument. This performed, the hands are immersed in a bichloride solution, 1-200, for at least three minutes, in which the scrubbing may be repeated.

It appears that the washing and scrubbing out with soap and disinfecting and antiseptic procedure with the bichlorid solution must be in separate acts, that it is not sufficient or desirable to use the soap in the bichlorid solution; I would suggest the reason for this that in using both at the same time the bichlorid might interfere with the antiseptic properties always contained in soap. The soap used is the soft potassa variety, and in a sensible conclusion he adds, in evidence of the true merit of soap as an antiseptic:

We cannot have a better proof of the high practical value of this soap as an antiseptic than the excellent results obtained in the large lying-in hospital of Vienna, where they have had a series of five hundred confinements, without a death from sepsis," for, says he, "since the standard antiseptic used in that institution is only a $\frac{1}{2}\%$ solution of carbolic acid, which has been proved experimentally to possess very weak antiseptic properties, it would seem that the results obtained are due more to the soap than to the carbolic acid.

In my paper today it is my purpose to show that asepsis, in the sense in which it has come to be accepted, is unattainable and not necessary for the obstetrician in a country practice. Owing to the fact that progressive country doctors are largely dependent for their knowledge of bacteriology and other kindred sciences upon books and magazine articles written by the city men for city men, we have unconsciously accepted metropolitan standards of asepsis which, although well enough perhaps as ideals, are nevertheless unattainable (and unnecessary) in our surroundings and the conditions we have to meet in a country practice.

In support of this statement I would call the attention of my colleagues to a few facts with which, although I am sure you are all quite familiar, perhaps have not been placed before you in such a way as to lead to reflection upon their true merit and their value, to the majority of the medical profession. We, the country physicians, are they who meet and overcome the real trials and difficulties of medical practice.

First. I wish to ask of you: How many ever considered the importance of one fact, well known to all of us, that although we do operation after operation with, from the accepted point of view, very imperfect or no attention to strict asepsis, our results do not show a greater proportion of septic infection than do those of city doctors, who operate in hospitals where asepsis and antiseptics are carried to an extent which would be neither desirable nor attainable with us in our surroundings? This is due to several facts, and it shall be my endeavor, in this paper, to place them before you in their true significance. We have the records of very exhaustive bacteriological experiments carried on at great cost and labor, the practical results of which have been entirely ignored or at least never applied to any material

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ASEPSIS; ESPECIALLY IN THE PRACTICE OF OBSTETRICS.

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use. I refer to the innumerable experiments on the relative purity of city and country atmosphere. The results both in this country and in Europe have been absolutely uniform; where sterile culture media have been exposed to city air or city dust and incubated at proper temperature, the culture plates show numerous colonies of both pathogenic and non-pathogenic bacteria. The results of like experiments carried on by the same men have been equally uniform and conclusive, when made with the air and dust of country places; practically no bacterial life resulted, even after prolonged exposure of the culture plates, and such as did result were almost without exception of non-pathogenic varieties. The meaning of these results, I think, must be clear to you all, but lest I have failed to express myself clearly, I will put it in another way by saying that we are continually surrounded by a practically sterile medium.

The second factor in rendering us free from the annoyances of attempting complete asepsis in our practice is the greater immunity to bacterial infection of country people, living as they do under more healthful, natural conditions than offered to those who dwell in the city, and hence whose vitality is depressed by breathing air laden with poisonous gases, the foul impurities given off in the breath of thousands of fellow creatures, and whose atmosphere reeks with innumerable bacteria, as we have just seen proven by investigation.

If you will but stop a moment to think, you will realize how true this is, for does not the best talent in our great cities send patients with serious bacterial infection as, for example, tuberculosis, to the country as soon as possible, that they may have the benefit of the vitalizing effect of the country air? Added to these unphysiologic conditions, undermining the resistive immunity of our city brother's patients, are the not less depressing influences of social surroundings and the indulgences which they enjoy—and suffer from. Further, in the country we are continually bathed in bright sunlight, which is so rapidly fatal to bacterial life of all kinds that antiseptics and aseptics are uncalled for, as has been repeatedly demonstrated by the immortal Pasteur and a host of less noted investigators.

But now I think I hear you object that sick people do not show this immunity in common with the well in the country, and while it must be granted that their surroundings are not so menacing as those of their city cousins, yet, should infection unexpectedly occur, they will offer no greater resistance. Quite possible; it is not my

desire to defend my theories, at this time, as applying to our sick in general; my arguments are at present to be confined, as suggested in the title, "especially to the practice of obstetrics."

Here we are, or should be, if we have been properly careful in preparing our patient for the advent of her child, dealing very generally with a person not sick, but simply undergoing a natural physiological event, and quite as resistive, so far as her general condition goes, to bacterial infection as any other healthy person. It is true that should it become necessary to enter a foreign substance, as the hand or an instrument, within the reproductive canal, we are trespassing on ground especially open to insult, and as such should observe reasonable care that we do not introduce dirt, which might, even in our usual clean surroundings, prove a source of infection. But I take it this care need not be of the nature of an elaborate asepsis as is advised in our modern journals and up-to-date text-books, or is practiced by our city brothers. Aside from any danger of bacterial infection, to be clean in clothes, in person and in habits, is a duty that every one of us owes to our patients, and no physician ought to be allowed to practice the healing art who does not give proper attention in that respect.

By reasonable care I mean that it is quite sufficient if it amounts to careful cleanliness, freeing the hands from material which one would not care to introduce from simple consideration of cleanliness aside from all bacteriological reasons. To this end I believe that boiling the instruments sufficiently to clean them, and thoroughly scrubbing the hands with soap and water, followed by alcohol to dissolve any remaining oily matter secreted by the ducts of the skin, is entirely sufficient and is always easily possible. Following this I am in the habit of using soap and water as a lubricant for the fingers, preferring it to oil or vaseline. This, with reasonable cleanliness of person and surroundings on the part of the patient, will invariably lead to successful results in country practice.

It will be seen by what has just been said that I do not in any way discredit a reasonable attention to asepsis, such as may be done by any one, anywhere, but what I do wish to have made clear is that the endless scrubbing, compressing, soaking in antiseptics, douching and the formidable array of antiseptic pack, gauzes and environment indulged in, and perhaps necessary in city practice and recommended in all books and articles, are uncalled for and absolutely unneeded in our practice and surroundings where fresh air and sunshine have removed from our shoulders the burden of sterilizing, in the words of the poet, "everything in sight and some things usually out of sight."

DISCUSSION:

Dr. Stoddard—The paper which the doctor has just read is exceedingly interesting, but I cannot agree with him in every particular. The longer I practice the more firmly I am convinced of the absolute necessity for the most rigid asepsis in the lying-in chamber. It is my custom to use antiseptic vaginal douches of mercury bichlorid or lysol before and after delivery in each and every case. If there is any evidence of infection I use the intra-uterine douche.

Dr. Flint—It is my experience that the obstetric patient in the country requires just as much care and attention as her sister in the city.

Dr. Cunnane—It is my habit to practice absolute cleanliness so far as it may be attained by the use of soap and water, and the use of douches of normal salt solution before and after delivery. An experience of two non-fatal cases of poisoning after the use of I to 5000 bichlorid douches has made me cautious in the selection of intra-vaginal douches after a confinement.

Dr. Vaughan—When I visited Europe the last time the use of antiseptics was not so popular in obstetric work as a few years before.

Dr. Conrad—Reports indicate that bichlorid is not so good an antiseptic or germicide as was formerly supposed, and is not perfectly free from danger in obstetric cases.

Dr. Barry—I practice cleanliness, but do not use antiseptics to any extent in midwifery cases; where an antiseptic is necessary, I prefer a $\frac{1}{2}\%$ carbolic acid douche.

Dr. Morrey—I do not use douches after confinements because I believe it interferes with the natural discharges.

Dr. Graham said he had waited on several hundred cases during the past twenty years, some of which were under the most discouraging circumstances, without a single death from sepsis in patients that he had control of from the commencement of labor.

BILL TO REGULATE "PATENT MEDICINES."

A bill has recently been introduced in the Legislature of Massachusetts providing for the regulation of the nostrum business. This proposed measure requires that the formula of the "patent" medicine be printed on the label of each container, and provides a fine of fifty cents for each original package not so labeled. Only extracts from the proposed law have thus far reached us, but it seems to offer some excellent suggestions. Of course the law should be so constructed as to omit physicians' prescriptions, but, with that exception, it would seem desirable to compel all manufacturers of anything intended to be used as medicine, in its broad sense, (any substances employed in the treatment of disease), to advertise just what the so-called medicine is composed of. That such a requirement will be bitterly fought by the enormous interests invested in the trade of debauching humanity, is certain. But with a good strong organization could not the weight of this influence be offset? It certainly would seem almost time to begin the effort, for it will doubtless take a good deal of time to put it through. Perhaps it will require the taking of a considerable amount of the excellent advice given recently by Dr. Chas. A. L. Reed, in his address on the "Doctor in Politics." If our Representatives in the State Legislature are at first bought up by the nostrum crowd, it would then be the proper time for physicians to get interested in politics and see that men were nominated for the Legislature who would pledge themselves not to be bought—at least not to be bought by the nostrum manufacturers. Such a campaign could be successful, if well planned and energetically carried out. For a cause so good and a

principle so right, it is not believeable that any physician in the Society would refuse to work, if not called upon to give up too much time.

EDITORIAL PAGES, AND "ADS."

Certain medical journals have been discussing of late the best method of excluding from their pages articles bearing the semblance of having been written by physicians in the interest of manufacturers and importers of proprietary medicines. These journals appeal to medical men to help them. Here is a quotation from an editorial in a recent number of the *New York Medical Journal*: "Meetings of even the most dignified of our societies have at times not wholly escaped the suspicion of having been exploited by the touters for some medicinal or dietetic preparation, and it is certain that papers are often read before them which a reputable medical journal would hesitate to publish." Truly, a deplorable state of affairs. We ought to come to the aid of these reputable journals by tabooing any of our members guilty of such unprofessional conduct as is charged, and we should help these journals still further with the kindly advice that they do not hereafter allow nearly every column of their advertising pages to be taken up with advertisements of proprietary and patent medicines. If it is not right to mention these remedies in the scientific and editorial columns, what makes it right to mention them in any other part of the journals? Can it be the same thing that induces certain hungry physicians to write articles for the wealthy manufacturers? Who are these manufacturers of proprietary remedies that they presume to burden our mails with circulars giving us instructions how to treat our patients? Do they employ a Brunton or an Osler, a Hare or a Behring?—(*Purdy in New York State Journal of Medicine.*)

"Surgical English" is always a delight—when it is not an agony—and generally it adds a pleasurable feeling of variety to the ordinary routine of medical discourse. The JOURNAL has noted a few bright gems from the treasury of the surgist (Why not? They say "internist"!) and will gladly note others as they come to light. Latest reports on "operated a case of ——" are good; they show a rather increased usage. A small jewel, though worthy of notice, is "profuse bad drainage"; we are stumped; what does it mean? Another choice specimen is to be recorded, and, would you believe it, is printed in beautiful gold letters on a medical work! It reads: "Complete Medical Pocket Formulary." While the male pocket is numerous, it is not complex—or at least it has not occurred to us that it could need a formulary. Perhaps this is meant for the uncommon but highly complex female pocket.

DIED.

It is with sincere sorrow that the JOURNAL announces the death of Dr. Louis A. Kengla, editor of the *Occidental Medical Times*. Dr. Kengla had suffered with an affection of the heart for some time and had been for several weeks confined to his bed. His death on Saturday, March 26th, while not wholly unexpected, will come as a shock to the profession of the Coast, who held him in the highest esteem. Dr. Kengla was president of the San Francisco County Medical Society last year and had been secretary of the California Academy of Medicine for several years. He was a native of Washington, D. C., and a graduate of the Medical Department of the University of Georgetown, D. C., '86. His funeral took place from St. Mary's Cathedral on Monday, March 28th. Rest his soul in peace.